

**BEFORE**  
**THE PUBLIC SERVICE COMMISSION OF**  
**SOUTH CAROLINA**

**DOCKET NO. 2019-185-E**  
**DOCKET NO. 2019-186-E**

In the Matter of:	)	
	)	
South Carolina Energy Freedom Act	)	DUKE ENERGY CAROLINAS,
(H.3659) Proceeding to Establish Duke	)	LLC'S AND DUKE ENERGY
Energy Carolinas, LLC's and Duke Energy	)	PROGRESS LLC'S LIST OF
Progress LLC's Standard Offer Avoided	)	ISSUES FOR DETERMINATION
Cost Methodologies, Form Contract Power	)	BY THE COMMISSION
Purchase Agreements, Commitment to Sell	)	
Forms, and Any Other Terms or Conditions	)	
Necessary (Includes Small Power	)	
Producers as Defined in 16 United States	)	
Code 796, as Amended) – S.C. Code Ann.	)	
Section 58-41-20(A)	)	
	)	

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Pursuant to the Public Service Commission of South Carolina's ("Commission") Order No. 2019-129-H, Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP" and, together with DEC, "Duke" or the "Companies") hereby present the following list of issues for Commission determination in these proceedings to implement the requirements of S.C. Code Ann. § 58-41-20, as enacted by the South Carolina Energy Freedom Act ("Act 62"):

**ISSUES FOR DETERMINATION BY COMMISSION**

**Peaker Methodology**

Act 62 directs the Commission to review and approve the methodology that the Companies have used to establish avoided energy and capacity cost rates offered to small power producer qualifying facilities ("QFs")—including both smaller QFs eligible for the Standard Offer Tariff,

as well as QFs not eligible for the Standard Offer Tariff (“Large QFs”). *See* S.C. Code Ann. §§ 58-41-20(A), 58-41-20(B)(1), (3).

- 1. Is the peaker methodology as applied by DEC and DEP a reasonable and appropriate methodology to fully and accurately quantify the Companies’ forecasted capacity and energy cost to be avoided by purchases from QFs?** *See Duke Proposed Order, at Findings of Fact ¶ 8 and Discussion and Conclusion at Pages 52 to 55*

Yes\_\_\_\_ No\_\_\_\_

**Avoided Energy Cost Quantification and Rate Design**

As part of the Commission’s responsibility under Act 62 to approve Duke’s avoided cost methodology, the Commission must also ensure that “rates for the purchase of energy and capacity fully and accurately reflect the electrical utility’s avoided costs” including the utility’s energy costs to be avoided by purchases from QFs. S.C. Code Ann. § 58-41-20(B)(1), (3).

- 2. Have DEC and DEP applied a reasonable methodology to fully and accurately quantify each utility’s avoided energy cost rates?** *See Duke Proposed Order, at Findings of Fact ¶¶ 9 to 10 and Discussion and Conclusion at Pages 55 to 67*

Yes\_\_\_\_ No\_\_\_\_

**As part of this determination, the Commission finds that DEC and DEP reasonably and appropriately:**

- 2a. Applied Duke’s production cost model, PROSYM, to analyze the change in system production costs with and without a 100 MW block of no-cost generation (representing QF power) on an hourly basis over a 10-year period?**

Yes\_\_\_\_ No\_\_\_\_

- 2b. Modeled DEP-East and DEP-West as a single Balancing Authority to calculate a single avoided energy rate for DEP?**

Yes\_\_\_\_ No\_\_\_\_

- 2c. Modeled QFs as not providing a separate fuel hedge value in the Companies’ avoided energy rates in excess of the full price of the fuel that Duke would otherwise have purchased if the Companies were to generate energy themselves rather than purchasing fixed price QF power?**

Yes\_\_\_\_ No\_\_\_\_

**2d. Included avoided environmental cost inputs, such as O&M costs to manage coal ash, in calculating the Companies' avoided energy rates?**

Yes\_\_\_\_ No\_\_\_\_

**3. Does DEC's and DEP's proposed energy rate design accurately compensate QFs for the value of the energy they provide to the Companies and customers, consistent with PURPA, FERC's implementing regulations, and Act 62? See Duke Proposed Order, at Finding of Fact ¶ 11 and Discussion and Conclusion at Pages 67 to 73**

Yes\_\_\_\_ No\_\_\_\_

### **Calculating Avoided Energy Rates for Large QFs**

Act 62 directs the Commission to review and approve the methodology that the Companies use to establish avoided energy and capacity cost rates offered to QFs not eligible for the Standard Offer Tariff ("Large QFs") and requires the Large QF rates to be based on avoided cost rates and methodologies as determined by the Commission. See S.C. Code Ann. §§ 58-41-20(A), 58-41-20(B)(1), (3), 58-41-20(F)(1).

**4. Is it appropriate for DEC and DEP to use a Large QF's actual production profile, and to include the most up-to-date inputs under the peaker methodology, in calculating a Large QF's avoided energy rates? See Duke Proposed Order, at Finding of Fact ¶ 12 and Discussion and Conclusion at Pages 73 to 79**

Yes\_\_\_\_ No\_\_\_\_

### **Avoided Capacity Quantification and Rate Design**

As part of the Commission's responsibility under Act 62 to approve Duke's avoided cost methodology, the Commission must also ensure that "rates for the purchase of energy and capacity fully and accurately reflect the electrical utility's avoided costs" including the utility's capacity costs to be avoided by purchases from QFs. S.C. Code Ann. § 58-41-20(B)(1), (3).

**5. Have DEC and DEP accurately and appropriately applied the peaker methodology to calculate each utility's avoided capacity rate? See Duke Proposed Order, at Findings of Fact ¶¶ 13 to 16 and Discussion and Conclusion at Pages 79 to 100**

Yes\_\_\_\_ No\_\_\_\_

As part of this determination, the Commission finds that DEC and DEP reasonably and appropriately:

**5a. Identified their first year avoidable capacity need, as presented in the Companies' 2019 Integrate Resource Plans ("IRPs")?** *See Duke Proposed Order, at Findings of Fact ¶ 13 and Discussion and Conclusion at Pages 79 to 89*

Yes \_\_\_\_\_ No \_\_\_\_\_

**5b. Modeled each utility's "peaking" plant as based upon Energy Information Administration data of the capital cost of an F-Frame combustion turbine ("CT") and not based upon the higher capital cost of an aeroderivative CT?** *See Duke Proposed Order, at Findings of Fact ¶ 14 and Discussion and Conclusion at Pages 89 to 100*

Yes \_\_\_\_\_ No \_\_\_\_\_

**5c. Adjusted the EIA CT cost to recognize the economies of scale associated with shared land, buildings, roads, security, gas interconnection, and other infrastructure for a 4-unit CT site, which aligns with the Companies' practice to build multiple units at a new site?** *See Duke Proposed Order, at Findings of Fact ¶ 14 and Discussion and Conclusion at Pages 89 to 100*

Yes \_\_\_\_\_ No \_\_\_\_\_

**5d. Modeled the useful life of the avoided CT unit based upon the same 35-year useful life relied upon in DEC' and DEP's 2019 IRPs?** *See Duke Proposed Order, at Findings of Fact ¶ 15 and Discussion and Conclusion at Pages 89 to 100*

Yes \_\_\_\_\_ No \_\_\_\_\_

**6. Has DEC appropriately calculated a seasonal allocation weighting of capacity value of 90% winter and 10% summer?** *See Duke Proposed Order, at Findings of Fact ¶ 17 and Discussion and Conclusion at Pages 100 to 112*

Yes \_\_\_\_\_ No \_\_\_\_\_

**7. Has DEP appropriately calculated a seasonal allocation weighting of capacity value of 100% winter, and 0% summer?** *See Duke Proposed Order, at Findings of Fact ¶ 17 and Discussion and Conclusion at Pages 100 to 112*

Yes \_\_\_\_\_ No \_\_\_\_\_

### **Solar Integration Services Charge**

Act 62 also prescribes that the Commission shall "treat small power producers on a fair and equal footing with electrical utility owned resources by ensuring that each electrical utility's

...avoided cost methodology fairly accounts for costs avoided by the electrical utility or incurred by the electrical utility, including...ancillary services provided by or consumed by small power producers including those utilizing energy storage equipment.” S.C. Code. Ann. § 58-41-20(B)(3).

- 8. Is it appropriate to approve the Solar Integration Services Charge Settlement, and all terms and conditions therein, between DEC, DEP, South Carolina Solar Business Alliance, Johnson Development Associates, and Southern Alliance for Clean Energy/South Carolina Coastal Conservation League? See Duke Proposed Order, at Findings of Fact ¶¶ 18 to 22 and Discussion and Conclusion at Pages 112 to 124**

Yes \_\_\_\_\_ No \_\_\_\_\_

**Standard Offer**

Act 62 directs the Commission to review and approve the Companies’ Standard Offer Tariff and supporting terms and conditions available to smaller QFs up to 2 MW in capacity. See S.C. Code Ann. §§ 58-41-20(A), 58-41-05(B)(15). To ensure that small power producers are treated on fair and equal footing with utility-owned resources, the Commission must also determine that PPAs, including terms and conditions, are commercially reasonable and consistent with regulations and orders promulgated by the Federal Energy Regulatory Commission (“FERC”) implementing PURPA. See S.C. Code Ann. §§ 58-41-20(B)(2).

- 9. Does the Commission find that DEC’s and DEP’s Standard Offer tariffs and supporting terms and conditions are commercially reasonable, consistent with regulations and order promulgated by FERC, and should be approved? See Duke Proposed Order, at Findings of Fact ¶¶ 23 to 35 and Discussion and Conclusion at Pages 125 to 131**

Yes \_\_\_\_\_ No \_\_\_\_\_

**Large QF PPA**

Act 62 directs the Commission to review and approve the Companies’ form contract power purchase agreement available to small power production facilities not eligible for the Standard Offer (“Large QF PPA”). Act 62 further prescribes terms and conditions that shall be contained in the Large QF PPA. See S.C. Code Ann. § 58-41-20(A). To ensure that small power producers

are treated on fair and equal footing with utility-owned resources, the Commission must also determine that Duke's Large QF PPA, including terms and conditions, are commercially reasonable and consistent with regulations and orders promulgated by the FERC implementing PURPA. *See* S.C. Code Ann. § 58-41-20(B)(2).

**10. Does the Commission find that DEC's and DEP's Large QF PPA is commercially reasonable, consistent with regulations and order promulgated by FERC, and should be approved?** *See Duke Proposed Order, at Findings of Fact ¶¶ 26 to 29 and Discussion and Conclusion at Pages 131 to 137*

Yes \_\_\_\_\_ No \_\_\_\_\_

#### **Notice of Commitment Form**

Act 62 directs the Commission to approve a standard notice of commitment sell form to allow a small power producer to commit to sell the output of its facility to the electrical utility at the avoided cost rates and pursuant to the Commission-approved PPA then in effect. The notice of commitment form must provide the small power producer a reasonable period of time from its submittal of the form to execute a power purchase agreement. In no event, however, shall the small power producer, as a condition of preserving the pricing and terms and conditions established by its submittal of an executed commitment to sell form to the electrical utility, be required to execute a PPA prior to receipt of a final interconnection agreement from the electrical utility. *See* S.C. Code Ann. § 58-41-20(D).

**11. Does the Commission find that DEC's and DEP's Notice of Commitment Form is reasonable, otherwise meets the requirements of S.C. Code Ann. § 58-41-20(D), and should be approved?** *See Duke Proposed Order, at Findings of Fact ¶¶ 30 to 33 and Discussion and Conclusion at Pages 138 to 144*

Yes \_\_\_\_\_ No \_\_\_\_\_

#### **Consideration of Optional Fixed Price PPA Proposal Longer Than 10 Years**

Act 62 requires that "electrical utilities shall offer to enter into fixed price power purchase agreements with small power producers for the purchase of energy and capacity at avoided cost,

with commercially reasonable terms and a duration of ten years” until “an electrical utility has executed interconnection agreements and power purchase agreements with qualifying small power production facilities located in South Carolina with an aggregate nameplate capacity equal to twenty percent of the previous five-year average of the electrical utility’s South Carolina retail peak load.” *See* S.C. Code Ann. §§ 58-41-20(F)(1) and 58-41-20(F)(2). Act 62 also provides that the Commission may “approve commercially reasonable fixed price power purchase agreements with a duration longer than ten years, which must contain additional terms, conditions, and/or rate structures as proposed by intervening parties and approved by the commission, including but not limited to, a reduction in the contract price relative to the ten-year avoided cost. The Act also provides that the Commission may determine any other necessary terms and conditions deemed to be in the best interest of the ratepayers. *See* S.C. Code Ann. § 58-41-20(F)(1).

- 12. Have the Companies proposed to enter into fixed price, ten-year PPAs for both Standard Offer QFs up to 2 MW and Large QFs up to 80 MW in compliance with the requirements of S.C. Code Ann. § 58-41-20(F)(1)?**

Yes\_\_\_\_ No\_\_\_\_

- 13. Have the Companies achieved the twenty percent threshold necessitating a review of contract length, as prescribed in S.C. Code Ann. § 58-41-20(F)(2)?**

Yes\_\_\_\_ No\_\_\_\_

- 14. Has any intervening party entered into the evidentiary record an optional proposal for a contract duration longer than ten years, containing a reduction in the contract price relative to the ten-year avoided cost, and additional terms, conditions, and/or rate structures prior to the close of the evidentiary record, consistent with S.C. Code Ann. § 58-41-20(F)(1)?**

Yes\_\_\_\_ No\_\_\_\_

- 14a. If Yes, does the Commission find that the evidentiary record supports the approval of a contract duration longer than ten years, with the additional terms, conditions, and/or rate structures (including a reduction in contract price relative to the ten-year avoided cost) proposed by Intervenor as just and reasonable to the ratepayers of the electrical utility, in the public interest, consistent with PURPA and the FERC’s implementing regulations and orders,**

**nondiscriminatory to small power producers, and striving to reduce the risk placed on the using and consuming public pursuant to S.C. Code Ann. § 58-41-20(A)?** *See Duke Proposed Order, at Findings of Fact ¶ 34 and Discussion and Conclusion at Pages 144 to 161*

Yes\_\_\_\_ No\_\_\_\_

**Commission Decision Meets Requirements of Act 62 and Reduces Risks to Consumers**

Act 62 provides that any decisions by the Commission shall be just and reasonable to the ratepayers of the electrical utility, in the public interest, consistent with PURPA and the FERC's implementing regulations and orders, and nondiscriminatory to small power producers; and shall strive to reduce the risk placed on the using and consuming public. *See* S.C. Code Ann. § 58-41-20(A).

**15. Does the Commission find that the Commission's decisions in this proceeding are consistent with the requirements of PURPA and FERC's regulations and has met the requirement to reduce the risk placed on the using and consuming public in these proceedings?**

Yes\_\_\_\_ No\_\_\_\_